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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/750,800	12/28/2000	John A. Schlack	T721-20	8297

27832 7590 05/03/2005

TECHNOLOGY, PATENTS AND LICENSING, INC./PRIME  
6206 KELLERS CHURCH ROAD  
PIPERSVILLE, PA 18947

EXAMINER

MANNING, JOHN

ART UNIT PAPER NUMBER

2614

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/750,800

Applicant(s)

SCHLACK, JOHN A.

Examiner

John Manning

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-61 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-61 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/10/04, 8/02/01.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments, see pages 14-19, filed 10/18/2004, with respect to the rejection(s) of claim(s) 1-46 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Wright (US Pat No 6,484,317) in view of Bar-el (International Pub No WO 99/26415).

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright (US Pat No 6,484,317) in view of Bar-el (International Pub No WO 99/26415).

In regard to claim 1, the Wright reference discloses a method for routing data messages through a cable transmission system. "A switch at the service site directs data messages to service lines coupled to the site which have destination addresses corresponding to one of the service lines. Data messages not having a destination address corresponding to one of the service lines are provided to a transmitter for transmission to the next higher level of the CATV network over a return cable" (Abstract). The claimed limitation of "a plurality of routing units, each routing unit for

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receiving a set of presentation stream corresponding to a program channel” and “wherein at least one of the routing units selectively switches between the presentation streams in the set to deliver one of the presentation streams in the set to said subscribers” is met by Figure 1, Items 12, 14 and 16. “At the headend, the switch within each SPR is coupled to the switches in the other SPRs so that the switches may provide data messages having destination addresses which correspond to service sites coupled to the headend through the SPRs at the headend. If any switch at the headend cannot determine that a destination address in a message is associated with any of the SPRs at the headend, the message is provided to a gateway for distribution over another network. Likewise, the headend is preferably provided with an ad insert server which may be used to insert overlay information into the broadcast signals as they are distributed through the network. Additionally, a processor may be provided at the headend having its own unique destination address so that data messages may be received by the processor from subscribers. In this manner, the operator of the CATV system may communicate with individual subscribers” (Col 11, lines 66-67; Col 12, Lines 1-4). “Most preferably, the SPRs of the present invention include a switch for routing data messages based on a destination address in the data messages. Each switch is an intelligent device having programmed logic which may be stored in non-volatile memory or hardwired. To route a message, the switch compares the destination address in a data message to addresses stored in an address table of the switch. If the destination address corresponds to an address in the table, the switch routes the data message to the switch at the same level corresponding to the destination address” (Col

4, Lines 43-52). The Wright reference fails to explicitly disclose "each of the presentation streams in each set carrying the same programming data but different advertisements corresponding to different market segments". The Bar-el reference is discloses a method of transmitting television programming and advertisements from a headend to a plurality of subscriber nodes (page 7, Lines 2-19). Bar-el teaches transmitting separate identical video sequences for each requester with different advertisements so as to provide advertisements that correspond to the user making the request and their closest group. "Each user requests whichever video sequence he desires to see. The requested video sequence is personalized with advertising images whose predefined profile the user fits. For example, company A might want to advertise to young men who like to read science fiction books. If the user fits this description, his video sequence will include the advertising image or images of company A. Company B might want to advertise to children who recently took an algebra course. The video sequence requested by such a child will have company B's images implanted therein. For example and as shown on the monitors 28 of computers 12, the video might include the movement of a person 29 along a street 30 to a building 32. For a first user who is known to be a young person, the advertisement might be for a drink. Fig. 1 shows a drink bottle 34 on one wall 35 of a building along the street, in the monitor labeled 28A. For a user who is known to be a soccer fan, the advertisement might be for a sports company. Monitor 28B shows a soccer ball 36 on wall 35. In this example, both users view the same video but each receives a different advertisement, personalized by their user profile. It will be appreciated that the two users can view different video sequences

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but the implanted images that they will receive are a function of their profile" (Page 7, Lines 20-24; Page 8, Lines 1-14). Consequently, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Wright with transmitting separate identical video sequences for each requester with different advertisements so as to provide advertisements that correspond to the user making the request and their closest group.

In regard to claim 2, the claimed limitation of "an ad location detector for detecting an advertisement insertion point in at least one of the presentation stream in the set and generating a detection signal indicating this detection" is met by video analyzer 25 of Bar-el. Where the where the generated parameters from the video analyzer act as a signal of detection. "Video controller 24 selects a video sequence for each user in response to his request. The video sequence can either be a stored or a real-time one. The video controller 24 also receives video parameters from video analyzer 25 defining how to implant the images. As described hereinbelow the video analyzer 25 generates the parameters from analyzing each frame of the video sequence. This analysis is performed in real-time, if the sequence is received in real-time, otherwise, it is performed of-line" (Page 11, Lines 20-24; Page 12, Lines 1-2). The claimed limitation of "a selector, coupled to the detector, for selecting one of the presentation streams in the set that is most appropriate in response to the detection signal" is met by the video controller 24 and the object storage unit 22 of Bar-el. "Object storage unit 22 and video controller 24 both provide their output to the personalization module 26 associated with the user. Object storage unit 22 outputs the personalized

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data, such as a set of advertisements, associated with the user's group and the names associated with each image to be implanted and video controller 24 provides the selected video and the associated video parameters describing how to transform the personalized data in order to implant the personalized data into the video stream" (Page 12, Lines 3-14). The claimed limitation of "a switch, coupled to the selector, for delivering the selected presentation stream to the subscribers" is met by the aforementioned routers disclosed in Wright.

In regard to claim 3, the combination of the aforementioned combined teaching fails to explicitly disclose detecting a cue tone present in one of the presentation streams. However, the examiner takes OFFICIAL NOTICE that it is notoriously well known in the art to detecting a cue tone present in one of the presentation streams so as to recognize the proper time to insert an advertisement. Consequently, it would have been clearly obvious to one of ordinary skill in the art to implement the combined teaching with detecting a cue tone present in one of the presentation streams so as to recognize the proper time to insert an advertisement.

In regard to claim 4, the claimed limitation of "wherein the ad location detector detects the ad insertion point based on scheduled avail time" is met by scheduler 42. Scheduler 42 meets the functionality of the ad location detector. "The scheduler 42 receives a predefined schedule, which is associated with the personalized data, of when and where to insert an image of the personalized data and for how long. The schedule is prepared in advance, typically according to advertising considerations. Some advertisers will pay for many minutes of insertion while others will pay for minimal

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amounts. The schedule defines when, and for how long, each image will be displayed.

The scheduler 42 also indicates onto which section of the surface the personalized data is to be implanted" (Page 14, Lines 14-21).

The claimed limitation recited in claim 5 is met by the user identifier 20 of Figure 2. "The user identifier 20 operates to identify' the client or some aspect of the client. The user identifier 20 acquires the identifying information once the communication between the user and the server has been initiated. Typically, when the user accesses the video server, there is either some login procedure, as is common for video servers on the internet which charge money for their services, or some handshaking between the client computer and the server which results in the server uniquely identifying the client computer. The login procedure can include questions which the user must answer from which the user identifier 20 builds a profile of the user or it can simply ask the identification of the user. The former is common as part of setting up a subscription with the video server. The latter is common once the user is a subscriber to the service" (Page 10, Lines 3-13).

In regard to claim 6, it is inherent to the system that if the comparison of the ad selection criteria and the viewer information is not identified, that the original or default ad will be shown.

In regard to claim 7, it is noted that the examiner interprets the language of the claim to be written in the alternative, such that the claim can be met by either an "analog cable network", "digital broadcast satellite (DBS) network", "digital cable network", "switched digital video (SDV) network", "hybrid fiber coaxial (HFC) cable network", or

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the "Internet". Wright discloses that the system is a HFC cable network (Col 5, Lines 59-61).

In regard to claims 8 and 9, the Wright reference discloses that the "device" may be located at the head-end or a distribution hub (i.e. a cable node). "At the headend, a SPR having a receiver 52 and transmitter 50 are provided for each SPR located at a distribution hub coupled to the headend. The SPRs at the headend are coupled as discussed above with respect to the SPRs in the distribution hub" (Col 10, Lines 34-38).

In regard to claim 10, the Wright reference discloses that the "device" may be located at the subscriber site. The reference is silent as to the "device" being contained in a set top box, however, it is submitted that it would have been clearly obvious to one of ordinary skill in the art to implement the "device" in a set top box so as to combine functionality into one unit thereby reducing production costs. Consequently, it would have been obvious to one of ordinary skill in the art to implement the "device" in a set top box for the noted advantage.

In regard to claim 11, the combined teaching fails to explicitly disclose that the device is located at a Universal Service Access Multiplexer (USAM) device in a Switched Digital Video (SDV) system. However, the examiner takes OFFICIAL NOTICE that it is notoriously well known in the art locate devices at a Universal Service Access Multiplexer (USAM) device in a Switched Digital Video (SDV) system so as to service a plurality of users. Consequently, it would have been clearly obvious to one of ordinary skill in the art to implement the combined teaching with locating the device at a

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Universal Service Access Multiplexer (USAM) device in a Switched Digital Video (SDV) system so as to service a plurality of users.

In regard to claim 12, Bar-el discloses that the advertisements may be directed to an advertiser-specific market segment defined by different advertisers. "Each user requests whichever video sequence he desires to see. The requested video sequence is personalized with advertising images whose predefined profile the user fits. For example, company A might want to advertise to young men who like to read science fiction books. If the user fits this description, his video sequence will include the advertising image or images of company A. Company B might want to advertise to children who recently took an algebra course. The video sequence requested by such a child will have company B's images implanted therein. For example and as shown on the monitors 28 of computers 12, the video might include the movement of a person 29 along a street 30 to a building 32. For a first user who is known to be a young person, the advertisement might be for a drink. Fig. 1 shows a drink bottle 34 on one wall 35 of a building along the street, in the monitor labeled 28A. For a user who is known to be a soccer fan, the advertisement might be for a sports company. Monitor 28B shows a soccer ball 36 on wall 35. In this example, both users view the same video but each receives a different advertisement, personalized by their user profile. It will be appreciated that the two users can view different video sequences but the implanted images that they will receive are a function of their profile" (Page 7, Lines 20-24; Page 8, Lines 1-14).

In regard to claim 13, Bar-el discloses that the advertisements may be directed to different fixed market segments. "The present invention is a system for personalizing video based on some knowledge (e.g. sex, age, hobbies, etc.) of the individual user requesting the video. The personalization can take many forms. It can be an advertisement for a company present only in the area where the user lives or works or for a company selling products of a type the user is known to like or for any other type of product or service which relates to the individual knowledge of the user. There can be multiple advertisements. For systems where the user can provide input: the personalization can change over time in response to some or all of the user's input" (Page 7, Lines 2-10).

In regard to claim 14, the Wright reference discloses a method for routing data messages through a cable transmission system. "A switch at the service site directs data messages to service lines coupled to the site which have destination addresses corresponding to one of the service lines. Data messages not having a destination address corresponding to one of the service lines are provided to a transmitter for transmission to the next higher level of the CATV network over a return cable" (Abstract). The claimed limitation of "a plurality of local routing stations coupled to the generator, each local routing station receiving the sets of presentation streams and selectively switching between the presentation streams in each set to deliver one presentation stream for at least one programming channel at least one subscriber associated with said routing station" is met by Figure 1, Items 12, 14 and 16. "At the headend, the switch within each SPR is coupled to the switches in the other SPRs so

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that the switches may provide data messages having destination addresses which correspond to service sites coupled to the headend through the SPRs at the headend. If any switch at the headend cannot determine that a destination address in a message is associated with any of the SPRs at the headend, the message is provided to a gateway for distribution over another network. Likewise, the headend is preferably provided with an ad insert server which may be used to insert overlay information into the broadcast signals as they are distributed through the network. Additionally, a processor may be provided at the headend having its own unique destination address so that data messages may be received by the processor from subscribers. In this manner, the operator of the CATV system may communicate with individual subscribers" (Col 11, lines 66-67; Col 12, Lines 1-4). "Most preferably, the SPRs of the present invention include a switch for routing data messages based on a destination address in the data messages. Each switch is an intelligent device having programmed logic which may be stored in non-volatile memory or hardwired. To route a message, the switch compares the destination address in a data message to addresses stored in an address table of the switch. If the destination address corresponds to an address in the table, the switch routes the data message to the switch at the same level corresponding to the destination address" (Col 4, Lines 43-52). The Wright reference fails to explicitly disclose "generator for generating a set of presentation streams for each of a plurality of programming channels, each of the presentation streams in each set carrying the same programming data but different advertisements directed to different market segments". The Bar-el reference is discloses a method of transmitting television programming and

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advertisements from a headend to a plurality of subscriber nodes (page 7, Lines 2-19). Bar-el teaches transmitting separate identical video sequences for each requester with different advertisements so as to provide advertisements that correspond to the user making the request and their closest group. "Each user requests whichever video sequence he desires to see. The requested video sequence is personalized with advertising images whose predefined profile the user fits. For example, company A might want to advertise to young men who like to read science fiction books. If the user fits this description, his video sequence will include the advertising image or images of company A. Company B might want to advertise to children who recently took an algebra course. The video sequence requested by such a child will have company B's images implanted therein. For example and as shown on the monitors 28 of computers 12, the video might include the movement of a person 29 along a street 30 to a building 32. For a first user who is known to be a young person, the advertisement might be for a drink. Fig. 1 shows a drink bottle 34 on one wall 35 of a building along the street, in the monitor labeled 28A. For a user who is known to be a soccer fan, the advertisement might be for a sports company. Monitor 28B shows a soccer ball 36 on wall 35. In this example, both users view the same video but each receives a different advertisement, personalized by their user profile. It will be appreciated that the two users can view different video sequences but the implanted images that they will receive are a function of their profile" (Page 7, Lines 20-24; Page 8, Lines 1-14). Consequently, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Wright with transmitting separate identical video sequences for each requester with

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different advertisements so as to provide advertisements that correspond to the user making the request and their closest group.

In regard to claim 15, the claimed limitation of "an ad scheduler, coupled to the generator, for providing to the generator a schedule of advertisements to be included in the presentation streams for each set" is met by scheduler 42. "The scheduler 42 receives a predefined schedule, which is associated with the personalized data, of when and where to insert an image of the personalized data and for how long. The schedule is prepared in advance, typically according to advertising considerations. Some advertisers will pay for many minutes of insertion while others will pay for minimal amounts. The schedule defines when, and for how long, each image will be displayed. The scheduler 42 also indicates onto which section of the surface the personalized data is to be implanted" (Page 14, Lines 14-21). The claimed limitation of "a storage unit, coupled to the generator, for storing a library of advertisements and providing said advertisements to be included in the presentation streams for each set" is met by object storage unit 22. "Object storage unit 22 and video controller 24 both provide their output to the personalization module 26 associated with the user. Object storage unit 22 outputs the personalized data, such as a set of advertisements, associated with the user's group and the names associated with each image to be implanted and video controller 24 provides the selected video and the associated video parameters describing how to transform the personalized data in order to implant the personalized data into the video stream" (Page 12, Lines 3-14).

In regard to claims 16-18, scheduler 42, video controller 24 and the object storage unit 22 of Bar-el provide market segment and user information so as to determine a suitable commercial. "The scheduler 42 receives a predefined schedule, which is associated with the personalized data, of when and where to insert an image of the personalized data and for how long. The schedule is prepared in advance, typically according to advertising considerations. Some advertisers will pay for many minutes of insertion while others will pay for minimal amounts. The schedule defines when, and for how long, each image will be displayed. The scheduler 42 also indicates onto which section of the surface the personalized data is to be implanted" (Page 14, Lines 14-21). "Each user requests whichever video sequence he desires to see. The requested video sequence is personalized with advertising images whose predefined profile the user fits. For example, company A might want to advertise to young men who like to read science fiction books. If the user fits this description, his video sequence will include the advertising image or images of company A. Company B might want to advertise to children who recently took an algebra course. The video sequence requested by such a child will have company B's images implanted therein. For example and as shown on the monitors 28 of computers 12, the video might include the movement of a person 29 along a street 30 to a building 32. For a first user who is known to be a young person, the advertisement might be for a drink. Fig. 1 shows a drink bottle 34 on one wall 35 of a building along the street, in the monitor labeled 28A. For a user who is known to be a soccer fan, the advertisement might be for a sports company. Monitor 28B shows a soccer ball 36 on wall 35. In this example, both users view the same video but each

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receives a different advertisement, personalized by their user profile. It will be appreciated that the two users can view different video sequences but the implanted images that they will receive are a function of their profile" (Page 7, Lines 20-24; Page 8, Lines 1-14).

In regard to claim 19, Bar-el discloses that the advertisements may be directed to different fixed market segments. "The present invention is a system for personalizing video based on some knowledge (e.g. sex, age, hobbies, etc.) of the individual user requesting the video. The personalization can take many forms. It can be an advertisement for a company present only in the area where the user lives or works or for a company selling products of a type the user is known to like or for any other type of product or service which relates to the individual knowledge of the user. There can be multiple advertisements. For systems where the user can provide input: the personalization can change over time in response to some or all of the user's input" (Page 7, Lines 2-10).

Claim 20 is met by that discussed above for claim 14.

In regard to claim 21, it is noted that the examiner interprets the language of the claim to be written in the alternative, such that the claim can be met by either an "analog cable network", "digital broadcast satellite (DBS) network", "digital cable network", "switched digital video (SDV) network", "hybrid fiber coaxial (HFC) cable network", or the "Internet". Wright discloses that the system is a HFC cable network which is a delivery network (Col 5, Lines 59-61).

In regard to claim 22, the claimed limitation of "an ad location detector for detecting advertisement location points in at least one of the presentation streams in the designated set" is met by video analyzer 25 of Bar-el. Where the where the generated parameters from the video analyzer act as a signal of detection. "Video controller 24 selects a video sequence for each user in response to his request. The video sequence can either be a stored or a real-time one. The video controller 24 also receives video parameters from video analyzer 25 defining how to implant the images. As described hereinbelow the video analyzer 25 generates the parameters from analyzing each frame of the video sequence. This analysis is performed in real-time, if the sequence is received in real-time, otherwise, it is performed of-line" (Page 11, Lines 20-24; Page 12, Lines 1-2). The claimed limitation of "a selector, coupled to the detector, for selecting one of the presentation streams in the designated that most appropriate for at least one subscriber served by said routing station in response to the detection results from the ad location detector" is met by the video controller 24 and the object storage unit 22 of Bar-el. The routing station is met by the aforementioned routers disclosed in Wright. "Object storage unit 22 and video controller 24 both provide their output to the personalization module 26 associated with the user. Object storage unit 22 outputs the personalized data, such as a set of advertisements, associated with the user's group and the names associated with each image to be implanted and video controller 24 provides the selected video and the associated video parameters describing how to transform the personalized data in order to implant the personalized data into the video stream" (Page 12, Lines 3-14). The claimed limitation of "a switch, coupled to the

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selector, for delivery the selected presentation stream to the subscriber” is met by the aforementioned routers disclosed in Wright.

In regard to claim 23, the combination of the aforementioned combined teaching fails to explicitly disclose detecting a cue tone present in one of the presentation streams. However, the examiner takes OFFICIAL NOTICE that it is notoriously well known in the art to detecting a cue tone present in one of the presentation streams so as to recognize the proper time to insert an advertisement. Consequently, it would have been clearly obvious to one of ordinary skill in the art to implement the combined teaching with detecting a cue tone present in one of the presentation streams so as to recognize the proper time to insert an advertisement.

In regard to claim 24, the claimed limitation of “wherein, in each routing unit, the ad location detector detects the ad location point based on scheduled avail time” is met by scheduler 42. Scheduler 42 meets the functionality of the ad location detector. “The scheduler 42 receives a predefined schedule, which is associated with the personalized data, of when and where to insert an image of the personalized data and for how long. The schedule is prepared in advance, typically according to advertising considerations. Some advertisers will pay for many minutes of insertion while others will pay for minimal amounts. The schedule defines when, and for how long, each image will be displayed. The scheduler 42 also indicates onto which section of the surface the personalized data is to be implanted” (Page 14, Lines 14-21).

The claimed limitation recited in claim 25 is met by the user identifier 20 of Figure 2. “The user identifier 20 operates to identify the client or some aspect of the client.

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The user identifier 20 acquires the identifying information once the communication between the user and the server has been initiated. Typically, when the user accesses the video server, there is either some login procedure, as is common for video servers on the internet which charge money for their services, or some handshaking between the client computer and the server which results in the server uniquely identifying the client computer. The login procedure can include questions which the user must answer from which the user identifier 20 builds a profile of the user or it can simply ask the identification of the user. The former is common as part of setting up a subscription with the video server. The latter is common once the user is a subscriber to the service" (Page 10, Lines 3-13).

In regard to claim 26, it is inherent to the system that if the comparison of the ad selection criteria and the viewer information is not identified, that the original or default ad will be shown.

In regard to claims 27 and 30, the Wright reference discloses that the "device" may be located at the head-end or a distribution hub (i.e. a cable node). "At the headend, a SPR having a receiver 52 and transmitter 50 are provided for each SPR located at a distribution hub coupled to the headend. The SPRs at the headend are coupled as discussed above with respect to the SPRs in the distribution hub" (Col 10, Lines 34-38).

In regard to claim 28, the Wright reference discloses that the "device" may be located at the subscriber site. The reference is silent as to the "device" being contained in a set top box, however, it is submitted that it would have been clearly obvious to one

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of ordinary skill in the art to implement the "device" in a set top box so as to combine functionality into one unit thereby reducing production costs. Consequently, it would have been obvious to one of ordinary skill in the art to implement the "device" in a set top box for the noted advantage.

In regard to claim 29, the combined teaching fails to explicitly disclose that the device is located at a Universal Service Access Multiplexer (USAM) device in a Switched Digital Video (SDV) system. However, the examiner takes OFFICIAL NOTICE that it is notoriously well known in the art locate devices at a Universal Service Access Multiplexer (USAM) device in a Switched Digital Video (SDV) system so as to service a plurality of users. Consequently, it would have been clearly obvious to one of ordinary skill in the art to implement the combined teaching with locating the device at a Universal Service Access Multiplexer (USAM) device in a Switched Digital Video (SDV) system so as to service a plurality of users.

In regard to claim 31, the Wright reference discloses a method for routing data messages through a cable transmission system. "A switch at the service site directs data messages to service lines coupled to the site which have destination addresses corresponding to one of the service lines. Data messages not having a destination address corresponding to one of the service lines are provided to a transmitter for transmission to the next higher level of the CATV network over a return cable" (Abstract). The claimed limitation of "delivering the sets of presentation streams to a plurality of local routing stations" and "selectively switching, by at least one of the local routing stations, between the presentation streams in each set to deliver one

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presentation stream for at least one programming channel to at least one subscriber" is met by Figure 1, Items 12, 14 and 16. "At the headend, the switch within each SPR is coupled to the switches in the other SPRs so that the switches may provide data messages having destination addresses which correspond to service sites coupled to the headend through the SPRs at the headend. If any switch at the headend cannot determine that a destination address in a message is associated with any of the SPRs at the headend, the message is provided to a gateway for distribution over another network. Likewise, the headend is preferably provided with an ad insert server which may be used to insert overlay information into the broadcast signals as they are distributed through the network. Additionally, a processor may be provided at the headend having its own unique destination address so that data messages may be received by the processor from subscribers. In this manner, the operator of the CATV system may communicate with individual subscribers" (Col 11, lines 66-67; Col 12, Lines 1-4). "Most preferably, the SPRs of the present invention include a switch for routing data messages based on a destination address in the data messages. Each switch is an intelligent device having programmed logic which may be stored in non-volatile memory or hardwired. To route a message, the switch compares the destination address in a data message to addresses stored in an address table of the switch. If the destination address corresponds to an address in the table, the switch routes the data message to the switch at the same level corresponding to the destination address" (Col 4, Lines 43-52). The Wright reference fails to explicitly disclose "generating a set of presentation streams for each of a plurality of programming channels, each of the

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presentation streams in each set carrying the same programming data but different advertisements directed to different market segments". The Bar-el reference is discloses a method of transmitting television programming and advertisements from a headend to a plurality of subscriber nodes (page 7, Lines 2-19). Bar-el teaches transmitting separate identical video sequences for each requester with different advertisements so as to provide advertisements that correspond to the user making the request and their closest group. "Each user requests whichever video sequence he desires to see. The requested video sequence is personalized with advertising images whose predefined profile the user fits. For example, company A might want to advertise to young men who like to read science fiction books. If the user fits this description, his video sequence will include the advertising image or images of company A. Company B might want to advertise to children who recently took an algebra course. The video sequence requested by such a child will have company B's images implanted therein. For example and as shown on the monitors 28 of computers 12, the video might include the movement of a person 29 along a street 30 to a building 32. For a first user who is known to be a young person, the advertisement might be for a drink. Fig. 1 shows a drink bottle 34 on one wall 35 of a building along the street, in the monitor labeled 28A. For a user who is known to be a soccer fan, the advertisement might be for a sports company. Monitor 28B shows a soccer ball 36 on wall 35. In this example, both users view the same video but each receives a different advertisement, personalized by their user profile. It will be appreciated that the two users can view different video sequences but the implanted images that they will receive are a function of their profile" (Page 7,

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Lines 20-24; Page 8, Lines 1-14). Consequently, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Wright with transmitting separate identical video sequences for each requester with different advertisements so as to provide advertisements that correspond to the user making the request and their closest group.

In regard to claim 32, the claimed limitation of "generating a schedule of advertisements to be included in the presentation streams for each set" is met by scheduler 42. "The scheduler 42 receives a predefined schedule, which is associated with the personalized data, of when and where to insert an image of the personalized data and for how long. The schedule is prepared in advance, typically according to advertising considerations. Some advertisers will pay for many minutes of insertion while others will pay for minimal amounts. The schedule defines when, and for how long, each image will be displayed. The scheduler 42 also indicates onto which section of the surface the personalized data is to be implanted" (Page 14, Lines 14-21). The claimed limitation of "storing a library of advertisements to be included in the presentation streams for each set" is met by object storage unit 22. "Object storage unit 22 and video controller 24 both provide their output to the personalization module 26 associated with the user. Object storage unit 22 outputs the personalized data, such as a set of advertisements, associated with the user's group and the names associated with each image to be implanted and video controller 24 provides the selected video and the associated video parameters describing how to transform the personalized data in order to implant the personalized data into the video stream" (Page 12, Lines 3-14).

In regard to claims 33-34, scheduler 42, video controller 24 and the object storage unit 22 of Bar-el provide market segment and user information so as to determine a suitable commercial. "The scheduler 42 receives a predefined schedule, which is associated with the personalized data, of when and where to insert an image of the personalized data and for how long. The schedule is prepared in advance, typically according to advertising considerations. Some advertisers will pay for many minutes of insertion while others will pay for minimal amounts. The schedule defines when, and for how long, each image will be displayed. The scheduler 42 also indicates onto which section of the surface the personalized data is to be implanted" (Page 14, Lines 14-21). "Each user requests whichever video sequence he desires to see. The requested video sequence is personalized with advertising images whose predefined profile the user fits. For example, company A might want to advertise to young men who like to read science fiction books. If the user fits this description, his video sequence will include the advertising image or images of company A. Company B might want to advertise to children who recently took an algebra course. The video sequence requested by such a child will have company B's images implanted therein. For example and as shown on the monitors 28 of computers 12, the video might include the movement of a person 29 along a street 30 to a building 32. For a first user who is known to be a young person, the advertisement might be for a drink. Fig. 1 shows a drink bottle 34 on one wall 35 of a building along the street, in the monitor labeled 28A. For a user who is known to be a soccer fan, the advertisement might be for a sports company. Monitor 28B shows a soccer ball 36 on wall 35. In this example, both users view the same video but each

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receives a different advertisement, personalized by their user profile. It will be appreciated that the two users can view different video sequences but the implanted images that they will receive are a function of their profile" (Page 7, Lines 20-24; Page 8, Lines 1-14).

In regard to claim 35, it is noted that the examiner interprets the language of the claim to be written in the alternative, such that the claim can be met by either an "analog cable network", "digital broadcast satellite (DBS) network", "digital cable network", "switched digital video (SDV) network", "hybrid fiber coaxial (HFC) cable network", or the "Internet". Wright discloses that the system is a HFC cable network which is a delivery network (Col 5, Lines 59-61).

In regard to claim 36, the claimed limitation of "wherein each of the routing stations includes plurality of routing units, each routing receiving one set of presentation streams designated for one of the programming channels" is met by Figure 1, Items 12, 14 and 16. "At the headend, the switch within each SPR is coupled to the switches in the other SPRs so that the switches may provide data messages having destination addresses which correspond to service sites coupled to the headend through the SPRs at the headend. If any switch at the headend cannot determine that a destination address in a message is associated with any of the SPRs at the headend, the message is provided to a gateway for distribution over another network. Likewise, the headend is preferably provided with an ad insert server which may be used to insert overlay information into the broadcast signals as they are distributed through the network. Additionally, a processor may be provided at the headend having its own unique

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destination address so that data messages may be received by the processor from subscribers. In this manner, the operator of the CATV system may communicate with individual subscribers" (Col 11, lines 66-67; Col 12, Lines 1-4). "Most preferably, the SPRs of the present invention include a switch for routing data messages based on a destination address in the data messages. Each switch is an intelligent device having programmed logic which may be stored in non-volatile memory or hardwired. To route a message, the switch compares the destination address in a data message to addresses stored in an address table of the switch. If the destination address corresponds to an address in the table, the switch routes the data message to the switch at the same level corresponding to the destination address" (Col 4, Lines 43-52). The claimed limitation of "detecting, by at least one routing unit, an advertisement location point for one of the presentation streams designated set," is met by video analyzer 25 of Bar-el. Where the where the generated parameters from the video analyzer act as a signal of detection. "Video controller 24 selects a video sequence for each user in response to his request. The video sequence can either be a stored or a real-time one. The video controller 24 also receives video parameters from video analyzer 25 defining how to implant the images. As described hereinbelow the video analyzer 25 generates the parameters from analyzing each frame of the video sequence. This analysis is performed in real-time, if the sequence is received in real-time, otherwise, it is performed of-line" (Page 11, Lines 20-24; Page 12, Lines 1-2). The claimed limitation of "responsive to the detecting step, determining, by the one routing unit, which one of the presentation streams in the designated set is most appropriate for selection" is met by the video

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controller 24 and the object storage unit 22 of Bar-el. The routing station is met by the aforementioned routers disclosed in Wright. "Object storage unit 22 and video controller 24 both provide their output to the personalization module 26 associated with the user. Object storage unit 22 outputs the personalized data, such as a set of advertisements, associated with the user's group and the names associated with each image to be implanted and video controller 24 provides the selected video and the associated video parameters describing how to transform the personalized data in order to implant the personalized data into the video stream" (Page 12, Lines 3-14). The claimed limitation of "selecting, by the one routing unit, the most appropriate presentation stream in the designated set based on results from the determining step" is met by the aforementioned routers disclosed in Wright.

In regard to claim 37, the combination of the aforementioned combined teaching fails to explicitly disclose detecting a cue tone present in one of the presentation streams. However, the examiner takes OFFICIAL NOTICE that it is notoriously well known in the art to detecting a cue tone present in one of the presentation streams so as to recognize the proper time to insert an advertisement. Consequently, it would have been clearly obvious to one of ordinary skill in the art to implement the combined teaching with detecting a cue tone present in one of the presentation streams so as to recognize the proper time to insert an advertisement.

In regard to claim 38, the claimed limitation of "wherein the detecting step detects the ad location point based on scheduled avail time" is met by scheduler 42. Scheduler 42 meets the functionality of the ad location detector. "The scheduler 42 receives a

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predefined schedule, which is associated with the personalized data, of when and where to insert an image of the personalized data and for how long. The schedule is prepared in advance, typically according to advertising considerations. Some advertisers will pay for many minutes of insertion while others will pay for minimal amounts. The schedule defines when, and for how long, each image will be displayed. The scheduler 42 also indicates onto which section of the surface the personalized data is to be implanted" (Page 14, Lines 14-21).

The claimed limitation recited in claim 39 is met by the user identifier 20 of Figure 2. "The user identifier 20 operates to identify' the client or some aspect of the client. The user identifier 20 acquires the identifying information once the communication between the user and the server has been initiated. Typically, when the user accesses the video server, there is either some login procedure, as is common for video servers on the internet which charge money for their services, or some handshaking between the client computer and the server which results in the server uniquely identifying the client computer. The login procedure can include questions which the user must answer from which the user identifier 20 builds a profile of the user or it can simply ask the identification of the user. The former is common as part of setting up a subscription with the video server. The latter is common once the user is a subscriber to the service" (Page 10, Lines 3-13).

In regard to claim 40, it is inherent to the system that if the comparison of the ad selection criteria and the viewer information is not identified, that the original or default ad will be shown.

In regard to claims 41 and 44, the Wright reference discloses that the "device" may be located at the head-end or a distribution hub (i.e. a cable node). "At the headend, a SPR having a receiver 52 and transmitter 50 are provided for each SPR located at a distribution hub coupled to the headend. The SPRs at the headend are coupled as discussed above with respect to the SPRs in the distribution hub" (Col 10, Lines 34-38).

In regard to claim 42, the Wright reference discloses that the "device" may be located at the subscriber site. The reference is silent as to the "device" being contained in a set top box, however, it is submitted that it would have been clearly obvious to one of ordinary skill in the art to implement the "device" in a set top box so as to combine functionality into one unit thereby reducing production costs. Consequently, it would have been obvious to one of ordinary skill in the art to implement the "device" in a set top box for the noted advantage.

In regard to claim 43, the combined teaching fails to explicitly disclose that the device is located at a Universal Service Access Multiplexer (USAM) device in a Switched Digital Video (SDV) system. However, the examiner takes OFFICIAL NOTICE that it is notoriously well known in the art locate devices at a Universal Service Access Multiplexer (USAM) device in a Switched Digital Video (SDV) system so as to service a plurality of users. Consequently, it would have been clearly obvious to one of ordinary skill in the art to implement the combined teaching with locating the device at a Universal Service Access Multiplexer (USAM) device in a Switched Digital Video (SDV) system so as to service a plurality of users.

In regard to claim 45, Bar-el discloses that the advertisements may be directed to an advertiser-specific market segment defined by different advertisers. "Each user requests whichever video sequence he desires to see. The requested video sequence is personalized with advertising images whose predefined profile the user fits. For example, company A might want to advertise to young men who like to read science fiction books. If the user fits this description, his video sequence will include the advertising image or images of company A. Company B might want to advertise to children who recently took an algebra course. The video sequence requested by such a child will have company B's images implanted therein. For example and as shown on the monitors 28 of computers 12, the video might include the movement of a person 29 along a street 30 to a building 32. For a first user who is known to be a young person, the advertisement might be for a drink. Fig. 1 shows a drink bottle 34 on one wall 35 of a building along the street, in the monitor labeled 28A. For a user who is known to be a soccer fan, the advertisement might be for a sports company. Monitor 28B shows a soccer ball 36 on wall 35. In this example, both users view the same video but each receives a different advertisement, personalized by their user profile. It will be appreciated that the two users can view different video sequences but the implanted images that they will receive are a function of their profile" (Page 7, Lines 20-24; Page 8, Lines 1-14).

In regard to claim 46, Bar-el discloses that the advertisements may be directed to different fixed market segments. "The present invention is a system for personalizing video based on some knowledge (e.g. sex, age, hobbies, etc.) of the individual user

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requesting the video. The personalization can take many forms. It can be an advertisement for a company present only in the area where the user lives or works or for a company selling products of a type the user is known to like or for any other type of product or service which relates to the individual knowledge of the user. There can be multiple advertisements. For systems where the user can provide input: the personalization can change over time in response to some or all of the user's input" (Page 7, Lines 2-10).

Claim 47 is met by that discussed above for claims 1 and 2.

The claimed limitation recited in claim 48 is met by the user identifier 20 of Figure 2. "The user identifier 20 operates to identify' the client or some aspect of the client. The user identifier 20 acquires the identifying information once the communication between the user and the server has been initiated. Typically, when the user accesses the video server, there is either some login procedure, as is common for video servers on the internet which charge money for their services, or some handshaking between the client computer and the server which results in the server uniquely identifying the client computer. The login procedure can include questions which the user must answer from which the user identifier 20 builds a profile of the user or it can simply ask the identification of the user. The former is common as part of setting up a subscription with the video server. The latter is common once the user is a subscriber to the service" (Page 10, Lines 3-13).

Claims 49, 52, and 58 are met by that discussed above for claim 14.

In regard to claim 50, the claimed limitation of an "advertisement detector" is met by scheduler 42. Scheduler 42 meets the functionality of the ad location detector. "The scheduler 42 receives a predefined schedule, which is associated with the personalized data, of when and where to insert an image of the personalized data and for how long. The schedule is prepared in advance, typically according to advertising considerations. Some advertisers will pay for many minutes of insertion while others will pay for minimal amounts. The schedule defines when, and for how long, each image will be displayed. The scheduler 42 also indicates onto which section of the surface the personalized data is to be implanted" (Page 14, Lines 14-21).

In regard to claim 51, Bar-el discloses that the advertisements may be directed to an advertiser-specific market segment defined by different advertisers. "Each user requests whichever video sequence he desires to see. The requested video sequence is personalized with advertising images whose predefined profile the user fits. For example, company A might want to advertise to young men who like to read science fiction books. If the user fits this description, his video sequence will include the advertising image or images of company A. Company B might want to advertise to children who recently took an algebra course. The video sequence requested by such a child will have company B's images implanted therein. For example and as shown on the monitors 28 of computers 12, the video might include the movement of a person 29 along a street 30 to a building 32. For a first user who is known to be a young person, the advertisement might be for a drink. Fig. 1 shows a drink bottle 34 on one wall 35 of a building along the street, in the monitor labeled 28A. For a user who is known to be a

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soccer fan, the advertisement might be for a sports company. Monitor 28B shows a soccer ball 36 on wall 35. In this example, both users view the same video but each receives a different advertisement, personalized by their user profile. It will be appreciated that the two users can view different video sequences but the implanted images that they will receive are a function of their profile” (Page 7, Lines 20-24; Page 8, Lines 1-14).

Claims 53-55 are met by that discussed above for claims 15-17.

The claimed limitation recited in claim 57 is met by the user identifier 20 of Figure 2. “The user identifier 20 operates to identify’ the client or some aspect of the client. The user identifier 20 acquires the identifying information once the communication between the user and the server has been initiated. Typically, when the user accesses the video server, there is either some login procedure, as is common for video servers on the internet which charge money for their services, or some handshaking between the client computer and the server which results in the server uniquely identifying the client computer. The login procedure can include questions which the user must answer from which the user identifier 20 builds a profile of the user or it can simply ask the identification of the user. The former is common as part of setting up a subscription with the video server. The latter is common once the user is a subscriber to the service” (Page 10, Lines 3-13).

Claims 59-60 are met by that discussed above for claim 31.

The claimed limitation recited in claim 61 is met by the user identifier 20 of Figure 2. “The user identifier 20 operates to identify’ the client or some aspect of the client.

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The user identifier 20 acquires the identifying information once the communication between the user and the server has been initiated. Typically, when the user accesses the video server, there is either some login procedure, as is common for video servers on the internet which charge money for their services, or some handshaking between the client computer and the server which results in the server uniquely identifying the client computer. The login procedure can include questions which the user must answer from which the user identifier 20 builds a profile of the user or it can simply ask the identification of the user. The former is common as part of setting up a subscription with the video server. The latter is common once the user is a subscriber to the service" (Page 10, Lines 3-13).

### ***Conclusion***


4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Manning whose telephone number is 571-272-7352. The examiner can normally be reached on M-F: 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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JM  
April 29, 2005



**JOHN MILLER**  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600